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ABSTRACT

The author, Executive Director of the Presidents Council on Physical Fitness and Sports, presents a seven-question test for parents on the physical education program of their elementary school children, and examines health and physical fitness concerns of children and adults. Emphasis is placed on the early development of physical fitness as a method for preventing health problems in later life. Identifying the physically unfit child and constructing a developmental physical fitness program, with observation, remedial activity, and testing components, are discussed. Systematic planning of a program taking into account initial fitness levels, age, and sex of participants is urged. (MJB)

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PHYSICAL FITNESS IN THE ELEMENTARY SCHOOL

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Perhaps the best way to understand the recommendations of the President's Council on Physical Fitness and Sports (PCPFS) concerning physical education for elementary-age children is to ask you to answer the questions the Council asked recently in an advertising campaign, "7 Childish Questions for Parents."

Just how complete an education are your children getting? Are they being taught how to use their bodies, as well as their minds? Do they have the skills and knowledge they need to grow strong and healthy? This three-minute quiz may give you an idea how your children's schools shape up.

Question 1: Physical fitness isn't just a part-time thing. Does your school have a daily physical education program for every student?

Yes_____No_____

Question 2: No child should be neglected. Does your school give a screening test to detect special physical problems such as overweight, muscular weakness, physical impairments?

Yes_____No_____

Question 3: All children can improve with help. Does your school have special programs to help children with physical problems?

Yes_____No_____

Question 4: Test results help children measure their progress. Does your school offer the Presidential Physical Fitness Award program?

Yes_____No_____

Question 5: Physical fitness isn't just games. Does your school's physical education program devote at least 50% of its time to physical development activities like running, calisthenics and agility drills?

Question 6: Tennis, swimming, golf, skiing, jogging and volleyball are good, healthy fun. Are your children being taught skills in the popular lifetime sports?

Yes_____No_____

Question 7: Your children's special interests should be encouraged and further developed. Does your school have special-interest groups such as Bicycle Clubs, Hiking Clubs, Sailing Clubs, Riding Clubs, etc."

Yes_____No_____

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If your school falls short on these recommendations, then it needs your full support. Help strengthen your children's Physical Education programs.

I. The Physically Underdeveloped

For 16 years the PCPFS has been concerned with identifying physically underdeveloped children and finding remedies for their problems. Recently the President's Consultant on Physical Fitness and Sports said "this is the most urgent task facing physical education and other youth activity programs.

You have been given the booklet, The Physically Underdeveloped Child, published recently by the US Government Printing Office for the PCPFS.

Pilot projects conducted for the PCPFS indicated that one of every six children in this country is so weak, uncoordinated, or generally inept that he or she is physically underdeveloped. That cold statistic barely hints at the personal trauma and social problems behind it.

Unless the underdeveloped child is identified and helped, he or she cannot funtion effectively either in society at large or in the physical activities and games that are an important part of growing up. Embarrassed by repeated failure, the underdeveloped child may develop a low opinion of himself or herself, an active dislike of physical activity and sport, and an antisocial attitude. Such a child also is likely to become a sedentary, overweight adult with all of the added health risks that those conditions entail.

The personal costs of physical unfitness are painfully obvious to any adult who has ever seen a child ridiculed or rejected because of physical shortcomings. The social consequences are less apparent

but equally serious. The large number of physically underdeveloped individuals in America is a major stumbling block in the way of efforts to develop a more active and healthy populace.

A. Identification

Some physically underdeveloped children are easily identified. Their ineptness is so pronounced that it cannot possibly escape notice. There are other children, however, who have problems that are more difficult to detect. That is why it is important that youth physical education, recreation, and sports programs include a formal identification procedure based on objective tests and careful observation.

An identification procedure is described in the Council booklet and consists of a 3-item screening test for strength and endurance.

B. Observing

Careful observation of children's reaction to exercise is an important part of the screening procedure. As has been stated, a poor reaction to exercise usually indicates poor physical condition rather than an acute or chronic disorder. However, it is advisable to check out all questionable cases. If a child reacts poorly to exercise, the parents should be notified. If there are health care professionals associated with the program, the child should be referred to them.

Here are danger signals to look for:

. Breathlessness that persists long after exercise.

. Bluing of lips that is not due to cold or dampness.

. Pale, clammy skin or cold sweating during or after exercise.

. Unusual fatigue.

. Persistent shakiness after exercise.

. Muscle twitching.

There are other trouble signs that the teacher or leader cannot observe but which may be reported by pupils. If any of the following symptoms are recurrent after exercise, notification of parents and medical referral are recommended:

. Headache.

. Dizziness

. Fainting.

. Broken sleep.

. Digestive upset.

. Pain not associated with injury.

. Uneven heartbeat or severe pounding of heart.

. Disorientation or personality changes.

C. The Developmental Program

Most physically underdeveloped boys and girls can achieve at least average levels of physical fitness. Strength and endurance, in particular, can be dramatically improved by regular, vigorous exercise.

The needs of physically underdeveloped youth can best be met in a special class or group designed to deal with their problems. If there is no special class or group and it is impractical to

form one, it is recommended that 1) the entire group participate for a portion of each session in activities needed by the underdeveloped, or that 2) the underdeveloped follow a separate exercise program for a portion of each session.

In addition, the teacher or leader should encourage underdeveloped boys and girls to practice appropriate skills and exercise at home. This method meets with greatest success when the importance and purpose of the activities are explained to parents.

Some school systems and recreation departments operate summer sports-fitness programs designed to help raise underdeveloped children to acceptable fitness and skill levels. The most popular format emphasizes strength and endurance conditioning, plus skills instruction in running, gymnastics, and swimming. The programs usually operate 3 hours a day, 5 days a week, for 6 weeks.

Participation in activities that develop circulatory-respiratory endurance and muscular strength and endurance will correct the deficiencies of most underdeveloped children, but it may sometimes be necessary to prescribe more specialized exercise. Children with poor coordination should be instructed in basic movement and sports skills.

For help in planning and conducting a program, the reader is referred to these President's Council publications:

1. Youth Physical Fitness; Suggestions for School Programs, revised edition, July 1976. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price $1.50.

2. Physical Fitness Research Digest, these issues: January 1974 "Development of Muscular Strength and Endurance"; July 1974, "Circulatory-Respiratory Endurance Improvement"; and October 1976, "Physical Fitness Practices and Programs for Elementary and Secondary Schools." Available from PCPFS.

Boys and girls who fail one or more of the screening tests should be tested again after 6 weeks. Those showing progress should continue on their programs with increased exercise dosages until they exceed the minimum test standards. Those failing to progress should be carefully checked to determine the reason. Medical or personality problems should be suspected in particularly stubborn cases.

D. The Failure Rate: What to Expect

Although only about one of every six American boys and girls is considered to be physically underdeveloped, at least twice that many are likely to fail one or more of the screening tests on the first attempt. This seeming discrepancy is accounted for by children with good coordination and reasonable muscular development who test poorly for other reasons, such as obesity, lack of conditioning, or unfamiliarity with test items. These young people also require special attention.

E. Explaining the Test Results

Parents informed that their child has failed a physical fitness screening test may react in variety of ways. At one extreme they may dismiss the report as unimportant, interpreting it merely as in indication that their child is not "athletic." At the other extreme, they may become unduly alarmed, receiving the report as an indication of some irremediable defect.

The reporting procedure should be one that convinces parents of the importance of the screening test while not alarming them. A printed or mimeographed report form is recommended. It should start out with a simple statement that the child has not met the performance standards for his or her age and sex on a test prescribed by the President's Council. There should be boxes that can be checked to indicate the nature of the problem (arm-shoulder weakness, low circulatory-respiratory fitness, etc.)

If the child in question has failed a test of muscular strength or endurance, the parents should be informed that the problem usually can be corrected through appropriate exercise. If you are reporting poor circulatory-respiratory endurance or an unusually negative reaction to exercise, the parents should be advised that this problem usually indicates a lack of physical conditioning. They also should be advised to have the child see the family physician as a precaution.

Few parents are fully aware of the subtle relationships between physical fitness and personal health, performance, and appearance, or of the role that exercise plays in healthy growth and development. Fewer still are accustomed to thinking of a fitness test as an instrument for identifying problems that can seriously affect their child's future. Proper application of the test and careful interpretation of the results can help plug this serious gap in our approach to physical fitness and preventive health care.

II. Systematic Planning For Physical Fitness

In looking at various school curricula in physical education, I am concerned that there is no systematic planning for physical fitness progression. It's not unusual to find pupils performing activities at the same intensity in the 5th grade as in the 8th.

The physiological systems of the human body are wonderfully adjustable to physical activity. They will grow ever better in function as the body is physically conditioned throughout life. Many years ago, I decided the well body adapts positively to the stress placed upon it. Early in the educational experience, pupils should understand and be involved in functional, conditioning programs for a lifetime of physical fitness.

Cardiorespiratory activities should be provided for all pupils beginning at appropriate exercise tolerance levels and should be progressively increased grade by grade.

Pupils need to understand the effect of regular exercise, particularly on the heart and circulatory system.

We must teach pupils not only why they should exercise regularly and systematically but how to exercise.

Unfortunately many pupils have little or no increase in pulse or respiration during the physical education period. The PCPFS feels that if physical education doesn't have 50% of the period spent on vigorous physical activity which has caused a significant increase

in heart beat and respiration, you're shortchanging the children. Audit your program! How much endurance work do you have?

One of our country's leading pediatricians said atherosclerotic cardiovascular disease is a pediatric disease, and efforts to control it must be aimed at the pediatric age group as there is less chance of reversing the disease process after age 20. As endurance exercise programs can help reduce the alarming epidemic of premature atherosclerotic heart disease, can we afford to wait? Why can't we agree on a bold-faced objective for physical education as "to promote cardiopulmonary fitness." If your answer is affirmative, let's go farther. For 4th grade and above, how about urging teachers to begin circulatory activity periods each day physical education is given.

Obviously, pupils should be ability grouped on the basis of exercise tolerance work. The screening Recovery Index Test described in the aforementioned booklet, The Physically Underdeveloped Child Child, is a good means of assessing the exercise tolerance level of the individual pupil for endurance work.

A circulatory activities progression is set forth in the PCPFS pamphlet, An Introduction to Physical Fitness, and includes a Low Gear (red) Walking Program; a Middle Gear (white) Walking/ Jogging program , and High Gear (blue) Jogging Progra..

The AAHPER Youth Fitness Test Manual includes the norms for the 9 minute/1 mile run for boys and girls ages 10-12 and the 12 minute/ 1½ mile run for girls and boys age 13 and older.

Summary

1. Regular participation in vigorous physical activity geared to individual capacities, benefits the heart and circulation and reduces cardiac risk in a number of ways. Exercise has been shown to improve the efficiency of the heart and circulatory system, allowing it to pump more blood with less effort and to rest longer between beats. Exercise can also decrease blood pressure and the level of triglycerides in the blood and reduce the tendency of the blood to form clots.

2. The incidence of coronary heart disease is extremely high in this country and there is evidence to show that atherosclerotic cardiovascular disease begins during childhood.

3. Many physical education programs are not contributing to the cardiopulmonary fitness of pupils.

4. School physical education should insure progressive endurance running each day. When other activities in the instructional program provide the running experiences such as soccer, lap swimming, basketball, etc., the necessary endurance work is taken care of. On the days that pupils participate in instruction which does not involve enough continuous activity to have a conditioning effect, add running.

5. The regular habit of exercise participation will have a much greater chance of becoming a permanent lifetime pattern if it is initiated early, in a reasonable manner and understood by the individual.